Rule CIC194 The PSBPL storage pool specification may be too low

Finding: CPExpert believes that the PSBPL specification in the System Initialization Table (SIT) may be too low.

Impact: This finding should normally have a LOW IMPACT or MEDIUM IMPACT on the performance of the CICS region.

Logic flow: This is a basic finding, based upon an analysis of the CICS statistics.

Discussion: The PSBPL operand in the SIT specifies the number of blocks in the CICS-DL/I program specification block (PSB) pool. The PSB pool is used only if the CICS-DL/I interface is used. CICS uses the value specified in the PSBPL operand to limit the total virtual storage allocated at any one time to the PSB pool. CICS does not reserve the amount of storage specified, but allocates and deallocates the storage as required.

If there is insufficient space in the PSB pool to handle PSB pool requests, an IMS routine is called to free the least-used buffers in the pool. In this case, the oldest PSB is deleted and the new PSB is loaded. The deletion (and particularly the loading) of PSBs slows the processing of tasks. Other tasks in the CICS region can proceed (unless they are dependent upon the task waiting for PSB pool space). However, the response of the task waiting is degraded during the wait. Additionally, processor resources are required to delete the old PSB and load the new PSB. These effects can be eliminated if sufficient space is allocated to the PSB pool.

Allocating additional space to the PSB pool can require additional virtual storage (although CICS allocates the storage only if required). Allocating additional space to the PSB pool may be undesirable if storage is a constraint.

CPExpert produces Rule CIC194 if the number of waits for PSB pool space was greater than the PSBWAIT guidance variable, and if storage was not a constraint. The default for the PSBWAIT guidance variable is 0, indicating that Rule CIC194 will be produced if there were waits for PSB pool space and storage was not constrained.

Suggestion: CPExpert suggests that you increase the value of the PSBPL operand in the SIT to minimize the possibility of running out of space in the PSB pool.

IMS uses only what is required during operation, rather than acquiring what is specified in the SIT. Consequently, there is little danger of specifying a larger value for the PSBPL operand, unless storage is constrained.

If you feel that this rule is produced prematurely, increase the value of the PSBWAIT guidance variable in CPEXPERT.USOURCE(CICGUIDE).

NOTE: The significance of this finding depends upon whether the finding is based upon analyzing daily information or based upon analyzing historical information.

- If this finding is based upon an analysis of daily information, the finding may be applicable only to the performance of CICS for this day. Unless you feel that the analysis is generally applicable (or unless the workload processed on this day is particularly critical), please wait until CPExpert performs an analysis of historical information before taking action.

- If this finding is based upon an analysis of historical data covering a prolonged period, the finding is more definite than a tentative finding based upon analysis of only a single day's data.

Reference: *CICS/OS/VS Version 1.7 Performance* Guide: page 69 and pages 257-258.

CICS/MVS Version 2.1.2 Performance Guide: pages 182-183 and pages 398-399.

CICS/ESA Version 3.1.1 Performance Guide: pages 55-60 and pages 250-252.

CICS/ESA Version 3.2.1 Performance Guide: pages 172-174 and pages 276-280.

CICS/ESA Version 3.3.1 Performance Guide: pages 182-184 and pages 296-299.

CICS/ESA Version 4.1.1 Performance Guide: Section 4.5.5 and Appendix A.1.5.

CICS/TS: not applicable.

CICS/TS for z/OS: not applicable. |

